

Db 5 EKLPPGWEKMRSPGRGYFNFHITNPSQWERPSGNSS 43

RESULT 12

AAB74938  
ID AAB74938 standard; peptide; 34 AA.

AC AAB74938;

XX 27-JUN-2001 (first entry)

DT Peptidyl prolyl isomerase WW domain containing peptide.

DE Peptidyl prolyl isomerase; Pin-1; WW domain; modulator; kinase;

KW phosphatase; 14-3-3 protein.

XX Unidentified.

OS WO200125477-A2.

PN 12-APR-2001.

XX 29-SEP-2000; 2000WO-GB003736.

XX 01-OCT-1999; 99GB-00023208.

XX (CAMP-) CAMBRIDGE DRUG DISCOVERY LTD.

PA Frearson JA;

XX WPI; 2001-266323/27.

XX Identifying modulator of kinase or phosphatase activity, involves  
PT contacting enzyme and its substrate in presence and absence of the  
PT modulator, contacting the substrate with a reporter and comparing its  
PT binding.

PS Disclosure; Page 3; 22pp; English.

XX The present invention describes a method for identifying a modulator (I)  
CC of kinase or phosphatase activity. The method involves contacting the  
CC enzyme and its substrate (S) in the presence and absence of (I),  
CC contacting (S) with a reporter (R) excluding a natural antibody, which  
CC binds phosphorylated (S) with higher affinity than unphosphorylated (S),  
CC and comparing the binding of (R) to (S) treated in the presence of (I)  
CC than in the absence of (I). The method is useful for identifying a  
CC modulator of serine/threonine kinase activity and phosphatase activity.  
CC Use of recombinant proteins or synthetic peptides provide an economical,  
CC rapidly generated, non-exhaustible supply of reporter, offering  
CC considerable practical advantage over antibodies. The present sequence  
CC represents a peptidyl prolyl isomerase (Pin-1) amino acid sequence which  
CC contains a WW domain. WW domain containing proteins have been identified  
CC as having phosphoserine or phosphothreonine binding activities. WW domain  
CC containing proteins can be used as reporters in the method of the  
CC invention

SQ Sequence 34 AA;

Query Match 88.8%; Score 191; DB 4; Length 34;

Best Local Similarity 100.0%; Pred. No. 9.6e-19;

Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 EKLPPGWEKMRSPGRGYFNFHITNPSQWERPS 34

DB 1 EKLPPGWEKMRSPGRGYFNFHITNPSQWERPS 34

RESULT 13

AU32052

ID AU32052 standard; protein; 195 AA.

XX AAU32052;

XX

DT 18-DEC-2001 (first entry)

XX Novel human secreted protein #2543.

DE Human; vaccination; gene therapy; nutritional supplement;

KW stem cell proliferation; haematopoiesis; nerve tissue regeneration;

KW immune suppression; immune stimulation; anti-inflammatory; leukaemia;

XX Homo sapiens.

PN WO200179449-A2.

XX 25-OCT-2001.

XX 16-APR-2001; 2001WO-US008656.

XX 18-APR-2000; 2000US-00552929.

PR 26-JAN-2001; 2001US-00770160.

XX (HYSE-) HYSEQ INC.

XX Tang YT, Liu C, Drmanac RT;

PI WPI; 2001-611725/70.

XX Nucleic acids encoding a range of human polypeptides, useful in genetic

PT vaccination, testing and therapy.

XX Claim 20; Page 548-549; 765pp; English.

XX The invention relates to novel human secreted polypeptides. The

XX polypeptides and antibodies to the polypeptides are useful for

XX determining the presence of or predisposition to a disease associated

XX with altered levels of polypeptide. The polypeptides are also useful for

XX identifying agents (agonists and antagonists) that bind to them. Cells

XX expressing the proteins are useful for identifying a therapeutic agent

XX for use in treatment of a pathology related to aberrant expression or

XX physiological interactions of the polypeptide. Vectors comprising the

XX nucleic acids encoding the polypeptides and cells genetically engineered

XX to express them are also useful for producing the proteins. The proteins

XX are useful in genetic vaccination, testing and therapy, and can be used

XX as nutritional supplements. They may be used to increase stem cell

XX proliferation; to regulate haematopoiesis; and in bone, cartilage, tendon

XX and/or nerve tissue growth or regeneration; immune suppression and/or

XX stimulation; as anti-inflammatory agents; and in treatment of leukaemias.

XX AAU29510-AU33304 represent the amino acid sequences of novel human

XX secreted proteins of the invention

XX Sequence 195 AA;

SQ

Query Match 81.4%; Score 175; DB 4; Length 195;

Best Local Similarity 66.0%; Pred. No. 1.2e-15;

Matches 35; Conservative 0; Mismatches 0; Indels 18; Gaps 1;

OY 5 PGWEKMRSPGRGYFNFHITNPSQWERPSGNSS 39

DB 1 PGWEKMRSPGRGYFNFHITNPSQWERPSGNSS 39

RESULT 14

ABG11947

ID ABG11947 standard; protein; 259 AA.

XX ABG11947;

XX 18-FEB-2002 (first entry)

XX Novel human diagnostic protein #11938.

XX Human; chromosome mapping; gene mapping; gene therapy; forensic;

KW food supplement; medical imaging; diagnostic; genetic disorder.

XX Homo sapiens.

XX

Exhibit D

KW WO200175067-A2.  
 XX  
 OS  
 PD 11-OCT-2001.  
 XX  
 PF 30-MAR-2001; 2001WO-US008631.  
 XX  
 PR 31-MAR-2000; 2000US-00540217.  
 PR 23-AUG-2000; 2000US-00649167.  
 XX  
 PA (HYSE-) HYSEQ INC.  
 XX  
 PI Drmanac RT, Liu C, Tang YT;  
 PI WPI; 2001-639362/73.  
 DR N-PSDB; AAS76134.  
 XX  
 PT New isolated polynucleotide and encoded polypeptides, useful in  
 PT diagnostics, forensics, gene mapping, identification of mutations  
 PT responsible for genetic disorders or other traits and to assess  
 PT biodiversity.  
 XX  
 PS Claim 20; SEQ ID NO 42306; 103pp; English.  
 XX  
 CC The invention relates to isolated polynucleotide (I) and polypeptide (II)  
 CC sequences. (I) is useful as hybridisation probes, polymerase chain  
 CC reaction (PCR) primers, oligomers, and for chromosome and gene mapping.  
 CC and in recombinant production of (II). The polynucleotides are also used  
 CC in diagnostics as expressed sequence tags for identifying expressed  
 CC genes. (I) is useful in gene therapy techniques to restore normal  
 CC activity of (II) or to treat disease states involving (II). (II) is  
 CC useful for generating antibodies against it, detecting or quantitating a  
 CC polypeptide in tissue, as molecular weight markers and as a food  
 CC supplement. (II) and its binding partners are useful in medical imaging  
 CC of sites expressing (II). (I) and (II) are useful for treating disorders  
 CC involving aberrant protein expression or biological activity. The  
 CC polypeptide and polynucleotide sequences have applications in  
 CC diagnostics, forensics, gene mapping, identification of mutations  
 CC responsible for genetic disorders or other traits to assess biodiversity  
 CC and to produce other types of data and products dependent on DNA and  
 CC amino acid sequences. ABG0010-ABG30377 represent novel human diagnostic  
 CC amino acid sequences. The invention. Note: The sequence data for this  
 CC patent did not appear in the printed specification, but was obtained in  
 CC electronic format directly from WIPO at  
 CC ftp.wipo.int/pub/published\_pct\_sequences  
 XX  
 SQ Sequence 259 AA;

Query Match 81.4%; Score 175; DB 4; Length 259;  
 Best Local Similarity 66.0%; Pred. No. 1.7e-15;  
 Matches 35; Conservative 0; Mismatches 0; Indels 18; Gaps 1;  
 Qy 5 PCWEKMRSSS-----GRVYFNHITNASQWERPSGSS 39  
 Db 1 PCWEKMRSSSVVVTQALPTAIPRDAKGRVYFNHITNASQWERPSGSS 53

RESULT 15  
 AAB21943  
 ID AAB21943 standard; peptide; 31 AA.  
 AC AAB21943;  
 XX  
 XX 02-JAN-2001 (first entry)  
 XX  
 XX Pini/human peptide containing a WW-domain #1.  
 XX  
 KW WW-domain; protein-protein interaction; cell growth regulation;  
 KW protein degradation regulation; Alzheimer's; Dementia pugilistica;  
 KW Down's syndrome; Parkinson's disease; Pick's; neurodegenerative;  
 KW microtubule assembly; tau; hyperplasia; neoplasia; malignancy; psoriasis;  
 KW retinosis; atherosclerosis; leukaemia; lymphoma; papiloma;  
 OS tumour growth; lymphomas, papilomas, pulmonary fibrosis and  
 XX rheumatoid arthritis; multiple sclerosis;

KW muscular dystrophy; human.  
 OS Homo sapiens.  
 XX  
 PN WO200048621-A2.  
 XX  
 PD 24-AUG-2000.  
 XX  
 PF 18-FEB-2000; 2000WO-US004278.  
 XX  
 PR 18-FEB-1999; 99US-00252404.  
 XX  
 PA (BETH-) BETH ISRAEL DEACONESS MEDICAL CENT.  
 XX  
 PI Lu XP, Zhou XZ;  
 XX  
 XX WPI; 2000-594014/56.  
 DR  
 XX Mediating protein-protein interactions, useful for regulating cell growth  
 PT and for treating neurodegenerative disorders, comprises modulating  
 PT binding of WW domain containing polypeptide with phosphorylated ligand.  
 XX  
 PS Disclosure; Fig 2; 82pp; English.

XX The present invention relates to a method for mediating protein-protein  
 CC interaction, which comprises modulating the binding of a WW-domain  
 CC containing peptide with a phosphorylated ligand e.g. tau. WW-domains are  
 CC highly conserved regions of approximately 40 amino acid residues with two  
 CC invariant tryptophans (W) in a triple stranded beta-sheet. The present  
 CC sequence is one such WW-domain. When a WW-domain containing peptide is  
 CC phosphorylated at serine or threonine residues, dephosphorylation of  
 CC ligands bound to the peptide is inhibited. The present peptide may be  
 CC useful for mediating protein-protein interaction, regulating cell growth,  
 CC regulating protein degradation, restoring the function of tau to bind  
 CC microtubules and promote or restore microtubule assembly in  
 CC neurodegenerative diseases e.g. Alzheimer's, Dementia pugilistica, Down's  
 CC syndrome, Parkinson's disease, Pick's disease, multiple sclerosis,  
 CC muscular dystrophy, Corticobasal degeneration, Frontotemporal dementias,  
 CC Myotonic dystrophy, Niemann-Pick disease, prion disease with tangles,  
 CC progressive supranuclear palsy and subacute sclerosing panencephalitis.  
 CC In addition, inhibitors or stimulators of interactions between WW-domains  
 CC and ligands of the present invention can be used to treat hyperplastic  
 CC and neoplastic disorders e.g. all forms of malignancies, psoriasis,  
 CC retinosis, atherosclerosis resulting from plaque formation, leukaemias,  
 CC benign tumour growth, lymphomas, papilomas, pulmonary fibrosis and  
 CC rheumatoid arthritis

XX Sequence 31 AA;  
 SQ  
 Query Match 80.0%; Score 172; DB 3; Length 31;  
 Best Local Similarity 96.8%; Pred. No. 3.5e-16;  
 Matches 30; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  
 Qy 3 LPQWEKMRSSSGRVYFNHITNASQWERP 33  
 Db 1 LPQWEKMRSSSGRVYFNHITNASQWERP 31

RESULT 16  
 ABG12572  
 ID ABG12572 standard; protein; 191 AA.  
 AC ABG12572;  
 XX  
 XX 18-FEB-2002 (first entry)  
 XX  
 XX Novel human diagnostic protein #12563.  
 DE  
 KW Human; chromosome mapping; gene mapping; gene therapy; forensic;  
 KW food supplement; medical imaging; diagnostic; genetic disorder.  
 XX  
 OS Homo sapiens.  
 XX